## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings of claims in the application:

## LISTING OF CLAIMS:

The list of currently pending claims is presented below.

1	Claims 1128. (Canceled)
1	Claim 129. (Withdrawn) A device comprising:
2	a first substrate having a surface;
3	a second substrate having a surface, said first substrate and said second substrate being
4	aligned such that said surface of said first substrate opposes said surface of said
5	second substrate;
6	a first organic layer attached to said surface of said first substrate, wherein said first
7	organic layer comprises a first recognition moiety; and
8	a mesogenic layer between said first substrate and said second substrate, said mesogenic
9	layer comprising a plurality of mesogenic compounds.
1	Claim 130. (Withdrawn) The device according to claim 129, further comprising a second
2	organic layer attached to said second substrate.
1	Claim 131. (Withdrawn) The device according to claim 130, wherein said second organic
2	layer comprises a second recognition moiety.
1	Claim 132. (Withdrawn) The device according to claim 130, wherein said first recognition
2	moiety and said second recognition moiety are the same.
1	Claim 133. (Withdrawn) The device according to claim 131, wherein said first recognition
2	moiety and said second recognition moiety are different.

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- 1 (Withdrawn) The device according to claim 129, wherein said organic layer 2 comprises a member selected from the group consisting of organosulfur, organosilanes. 3 amphiphilic molecules, cyclodextrins, polyols, fullerenes and biomolecules. Claim 135. (Withdrawn) The device according to claim 130, wherein said first organic layer 2 and said second organic layer are different. 1 Claim 136. (Withdrawn) The device according to claim 130, wherein said first organic layer and said second organic layer are the same. 2 1 Claim 137. (Withdrawn) The device according to claim 129, wherein said organic layer 2 comprises a member selected from the group consisting of: (RO)3-Si-R1-(X1)n 3 4 wherein. 5 R is an alkyl group; R1 is a linking group between silicon and X1: 6 X1 is a member selected from the group consisting of reactive groups and 7 8 protected reactive groups; and 9 n is a number between L and 50 1 Claim 138. (Withdrawn) The device according to claim 137, wherein R is a member selected 2 from the group consisting of methyl and ethyl groups. 1 Claim 139. (Withdrawn) The device according to claim 137, wherein R is a member 2 selected from the group consisting of stable linking groups and cleaveable linking groups.
- Claim 140. (Withdrawn) The device according to claim 139, wherein R<sup>1</sup> is a member
  selected from the group consisting of alkyl, substituted alkyl, aryl, arylalkyl, substituted
  aryl, substituted arylalkyl, saturated cyclic hydrocarbon, unsaturated cyclic hydrocarbon,
  heteroaryl, heteroarylalkyl, substituted heteroaryl, substituted heteroarylalkyl,
  heterocyclic, substituted heterocyclic and heterocyclicalkyl groups.

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- 1 Claim 141. (Withdrawn) The device according to claim 139, wherein R<sup>1</sup> comprises a mojety 2 which is a member selected from group consisting of disulfide, ester, imide, carbonate. nitrobenzyl phenacyl and benzoin groups. 3
- Claim 142. (Withdrawn) The device according to claim 139, wherein R1 is a member 1 2 selected from the group consisting of alkyl and substituted alkyl groups.
- (Withdrawn) The device according to claim 137, wherein X1 is a member Claim 143. 2 selected from the group consisting of carboxylic acid, carboxylic acid derivatives. 3 hydroxyl, haloalkyl, dienophile, carbonyl, sulfonyl halide, thiol, amine, sulfhydryl, 4 alkene and epoxide groups.
- 1 Claim 144. (Previously presented) A method for detecting an analyte, comprising: 2 contacting with said analyte a recognition moiety for said analyte, wherein said 3 contacting causes at least a portion of a plurality of mesogens proximate to said 4 recognition moiety to detectably switch from a first orientation to a second 5 orientation upon contacting said analyte with said recognition moiety; and 6 detecting said second orientation of said at least a portion of said plurality of mesogens. 7 whereby said analyte is detected.
- Claim 145. (Previously presented) The method according to claim 144, wherein said analyte 2 is a member selected from the group consisting of vapors, gases and liquids.
- 1 Claim 146. (Previously presented) The method according to claim 145, wherein said vapor is a member selected from the group consisting of vapors of a single compound and vapors 2 3 of a mixture of compounds.
- 1 Claim 147. (Previously presented) The method of claim 145, wherein said gas is a member 2 selected from the group consisting of a single gaseous compound and mixtures of 3 gaseous compounds.

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mesogens.

1	Claim	148.	(Previously presented) The method of claim 145, wherein said liquid is a member
2		selecte	ed from the group consisting of a single liquid compound, mixtures of liquid
3		compo	ounds, solutions of solid compounds and solutions of gaseous compounds.
1	Claim	149.	(Previously presented) The method according to claim 144, wherein said
2		recogn	nition moiety comprises a member selected from the group consisting of mctal ions,
3		metal-	binding ligands, metal-ligand complexes, nucleic acids, peptides, cyclodextrins,
4		acids,	bases, antibodies, enzymes and combinations thereof.
1	Claim	150.	(Previously presented) The method according to claim 144, wherein from about
2		10 to a	about 108 mesogens undergo said switching for each molecule of analyte interacting
3		with s	aid analyte.
1	Claim	151.	(Previously presented) The method according to claim 144, wherein from about
2		10 <sup>3</sup> to	about 10 <sup>6</sup> mesogens undergo said switching.
1	Claim	152.	(Previously presented) The method according to claim 144, wherein said first
2		orienta	ation is a member selected from the group consisting of uniform, twisted, isotropic
3		and ne	matic and said second orientation is a member selected from the group consisting
4		of unif	form, twisted, isotropic and nematic, with the proviso that said first orientation and
5		said se	cond orientation are different orientations.
1	Claim	153.	(Previously presented) The method according to claim 152, wherein said
2		detecti	ng is achieved by a method selected from the group consisting of visual
3		observ	ation, microscopy, spectroscopic technique, electronic techniques and
4		combin	nations thereof.
l	Claim	154.	(Currently amended) The method according to claim 153 [[152]], wherein said

visual observation detects a change in reflectance, transmission, absorbance, dispersion,

diffraction, polarization and combinations thereof, of light impinging on said plurality of

1	Claim 155.	(Previously presented) The method according to claim 153, wherein said
2	micro	scopy is a member selected from the group consisting of light microscopy,
3	polari	zed light microscopy, atomic force microscopy, scanning tunneling microscopy and
4	comb	inations thereof.
1	Claim 156.	(Previously presented) The method according to claim 153, wherein said
2	spectr	oscopic technique is a member selected from the group consisting of infrared
3	spectr	oscopy, Raman spectroscopy, x-ray spectroscopy, visible light spectroscopy,
4	ultrav	iolet spectroscopy and combinations thereof.
1	Claim 157.	(Previously presented) The method according to claim 153, wherein said
2	electro	onic technique is a member selected from the group consisting of surface plasmon
3	resona	ance, ellipsometry, impedometric methods and combinations thereof.
1	Claim 158.	(Withdrawn) A device comprising:
2	a first	substrate having a first surface;
3	a seco	nd substrate having a second surface, said first substrate and said second substrate
4		being aligned such that said first surface of said first substrate opposes said
5		second surface of said second substrate;
6	a first	organic layer attached to said first surface, wherein said first organic layer
7		comprises a first recognition moiety which is bound to said first organic layer,
8		interacts with said analyte, and is selected from a peptide, protein, enzyme, and
9		receptor; and
0	a meso	ogenic layer between said first substrate and said second substrate, said mesogenic
1		layer comprising a plurality of mesogenic compounds.
1	Claim 159.	(Withdrawn) The device according to claim 158, further comprising an interior
2	portion	n defined as the area between said first surface and said second surface, wherein
3	said in	terior portion allows communication between said analyte and said recognition

moiety.

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1	Claim 160.	(Withdrawn) The device according to claim 158, wherein said organic layer is a
2	rubbe	d polymer.
1	Claim 161.	(Withdrawn) The device according to claim 158, wherein said recognition moicty
2	furthe	er comprises a biomolecule comprising a member selected from a polysaccharide
3	and a	combination of a polysaccharide and a protein.
1	Claim 162.	(Withdrawn) The device according to claim 158, wherein said first organic layer
2	comp	rises a self-assembled organosulfur or organosilane monolayer bound to said first
3	surfac	ee; and wherein said first recognition moiety is bound to said self-assembled
4	mono	layer.
1	Claim 163.	(Withdrawn) A device for detecting an interaction between an analyte and a first
2	or sec	ond recognition moiety, said device comprising:
3	a first	substrate having a first surface;
4	a first	organic layer attached to said first surface, wherein said first organic layer
5		comprises a first recognition moiety which is bound to said first organic layer,
6		interacts with said analyte, and is selected from a peptide, protein, enzyme, and
7		receptor; and
8	a seco	nd substrate having a second surface, said first substrate and said second substrate
9		being aligned such that said first surface opposes said second surface;
10	a seco	nd organic layer attached to said first surface, wherein said second organic layer
11		comprises a second recognition moiety, bound to said first organic layer, which
12		interacts with said analyte, wherein said second recognition moiety is selected
13		from an amine, a carboxylic acid, a biomolecule, a drug moiety, a chelating agent,
14		a crown ether, and a cyclodextrin; and
15	a meso	ogenic layer between said first substrate and said second substrate, said mesogenic
16		layer comprising a plurality of mesogens, wherein at least a portion of said
17		plurality of mesogens undergo a detectable switch in orientation upon interaction

- between said first recognition moiety and said analyte, whereby said analyte is 19 detected.
- 1 Claim 164. (Withdrawn) The device according to claim 163, wherein said analyte is a 2 member selected from the group consisting of acids, bases, avidin, organic ions, 3 inorganic ions, pharmaceuticals, herbicides, pesticides, agents of war, noxious gases, 4 biomolecules and combinations thereof.
- Claim 165. (Withdrawn) The device according to claim 163, wherein said interaction is a 2 member selected from the group consisting of covalent bonding, ionic bonding, hydrogen 3 bonding, van der Waals interactions, repulsive electronic interactions, attractive electronic interactions, hydrophobic interactions, hydrophilic interactions and 4 5 combinations thereof.
- 1 Claim 166. (Withdrawn) The device according to claim 163, wherein said first organic layer 2 comprises a self-assembled organosulfur or organosilane monolayer bound to said first 3 surface; and wherein said first recognition moiety is bound to said self-assembled 4 monolayer.
- Claim 167. (Withdrawn) The device according to claim 163, wherein said second organic 2 layer comprises a self-assembled organosulfur or organosilane monolayer bound to said 3 second substrate; and wherein said second recognition mojety is bound to said self-4 assembled monolayer.
- Claim 168. (Withdrawn) A device for detecting an interaction between an analyte and a first 2 or second recognition moiety, said device comprising:
- 3 a first substrate having a first surface:
- a first organic layer attached to said first surface, wherein said first organic layer 4 5 comprises a first recognition moiety which is bound to said first organic layer, 6 interacts with said analyte, and is selected from a peptide, protein, enzyme, and 7 receptor; and

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8	а	second substrate having a second surface, said first substrate and said second substrate
9		being aligned such that said first surface opposes said second surface;
10	а	second organic layer attached to said first surface, wherein said second organic layer
11		comprises a second recognition moiety, bound to said first organic layer, which
12		interacts with said analyte, wherein said second recognition moiety is selected
13		from a peptide, protein, enzyme, and receptor; and
14	a	mesogenic layer between said first substrate and said second substrate, said mesogenic
15		layer comprising a plurality of mesogens, wherein at least a portion of said
16		plurality of mesogens undergo a detectable switch in orientation upon interaction
17		between said first recognition moiety and said analyte, whereby said analyte is
8		detected.
1	Claim 1	69. (Withdrawn) The device according to claim 168, wherein said analyte is a
2	n	nember selected from the group consisting of acids, bases, avidin, organic ions,
3	inorganic ions, pharmaceuticals, herbicides, pesticides, agents of war, noxious gases,	
4	b	iomolecules and combinations thereof.
1	Claim 1	70. (Withdrawn) The device according to claim 168, wherein said interaction is a
2	n	nember selected from the group consisting of covalent bonding, ionic bonding, hydrogen
3	b	onding, van der Waals interactions, repulsive electronic interactions, attractive
4	e	lectronic interactions, hydrophobic interactions, hydrophilic interactions and
5	C	ombinations thereof.
1	Claim 1	71. (Withdrawn) The device according to claim 168, wherein said first organic layer
2	ce	omprises a self-assembled organosulfur or organosilane monolayer bound to said first
3	sı	arface; and wherein said first recognition moiety is bound to said self-assembled
4	m	onolayer.
1	Claim 17	2. (Withdrawn) The device according to claim 168, wherein said second organic

layer comprises a self-assembled organosulfur or organosilane monolayer bound to said

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3	secor	d substrate; and wherein said second recognition moiety is bound to said self-
4	assen	abled monolayer.
1	Claim 173.	(Withdrawn) A device for detecting an interaction between an analyte and a first
2	or sec	cond recognition moiety, said device comprising:
3	a firs	substrate having a first surface;
4	a first	organic layer attached to said first surface wherein said first organic layer
5		comprises a first recognition moiety which is bound to said first organic layer and
6		interacts with said analyte; and
7	a seco	and substrate having a second surface, said first substrate and said second substrate
8		being aligned such that said first surface opposes said second surface;
9	a seco	and organic layer attached to said first surface, wherein said second organic layer
10		comprises a second recognition moiety which is bound to said second organic
11		layer and interacts with said analyte; and
12	a mes	ogenic layer between said first substrate and said second substrate, said mesogenic
13		layer comprising a plurality of mesogens, wherein at least a portion of said
14		plurality of mesogens undergo a detectable switch in orientation upon interaction
15		between said first recognition moiety and said analyte, whereby said analyte is
16		detected.
1	Claim 174.	(Withdrawn) The device according to claim 173, wherein said analyte is a
2	memb	er selected from the group consisting of acids, bases, avidin, organic ions,
3	inorga	nic ions, pharmaceuticals, herbicides, pesticides, agents of war, noxious gases,
4	biomo	elecules and combinations thereof.
1	Claim 175,	(Withdrawn) The device according to claim 173, wherein said interaction is a
2	memb	er selected from the group consisting of covalent bonding, ionic bonding, hydrogen
3	bondi	ng, van der Waals interactions, repulsive electronic interactions, attractive
4	electro	onic interactions, hydrophobic interactions, hydrophilic interactions and
5	combi	nations thereof.

1	Claim	176. (Withdrawn) The device according to claim 173, wherein said first organic layer
2		comprises a self-assembled organosulfur or organosilane monolayer bound to said first
3		surface; and wherein said first recognition moiety is bound to said self-assembled
4		monolayer.
1	Claim	177. (Withdrawn) The device according to claim 173, wherein said second organic
2		layer comprises a self-assembled organosulfur or organosilane monolayer bound to said $$
3		second substrate; and wherein said second recognition moiety is bound to said self-
4		assembled monolayer.
1	Claim	178. (Withdrawn) The device according to claim 173, wherein said first organic layer
2		comprises a self-assembled organosulfur or organosilane monolayer bound to said first
3		surface; and wherein said first recognition moiety is bound to said self-assembled
4		monolayer.
1	Claim	179. (Withdrawn) A device comprising:
2		a first substrate having a surface, wherein said surface comprises a recognition moiety,
3		and said recognition moiety and said first substrate are joined through a member
4		selected from direct attachment and indirect attachment through a spacer arm;
5		a mesogenic layer oriented on said surface; and
6		an interface between said mesogenic layer and a member selected from the group
7		consisting of gases, liquids, solids and combinations thereof.
′		consisting of gases, riquids, solids and combinations thereof.
1	Claim	180. (Withdrawn) The device of claim 179, wherein said recognition moiety and said
2		first substrate are joined through direct attachment, and said direct attachment is through
3		a member selected from covalent bonding, ionic bonding, chemisorption, physisorption
4		and combinations thereof.

Claim 181. (Withdrawn) The device of claim 179, wherein said recognition moiety and said first substrate are joined through indirect attachment through a spacer arm, and wherein

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4 poly(ethyleneglycol), poly(propyleneglycol), diamines, and surface-active agents. Claim 182. (Withdrawn) A device comprising: 1 2 a first substrate having a surface, wherein said surface comprises a recognition moiety, 3 and said recognition moiety and said first substrate are joined through a member selected from direct attachment and indirect attachment through a spacer arm: 4 5 a second substrate having a second surface, said first substrate and said second substrate

said spacer arm comprises a member selected from the group consisting of

7 a mesogenic layer oriented on said surface; and

an interface between said mesogenic layer and a member selected from the group consisting of gases, liquids, solids and combinations thereof.

being aligned such that said first surface opposes said second surface;

- 1 Claim 183. (Withdrawn) The device of claim 182, wherein said recognition moiety and said 2 first substrate are joined through direct attachment, and said direct attachment is through 3 a member selected from covalent bonding, ionic bonding, chemisorption, physisorption and combinations thereof.
- Claim 184. (Withdrawn) The device of claim 182, wherein said recognition moiety and said first substrate are joined through indirect attachment through a spacer arm, and wherein 3 said spacer arm comprises a member selected from the group consisting of poly(ethyleneglycol), poly(propyleneglycol), diamines, and surface-active agents. 4
- Claim 185. (Withdrawn) A method for measuring the affinity of a recognition moiety for an 2 analyte of interest over a pre-bound analyte, said method comprising:
- 3 (a) contacting a first analyte with a recognition moiety for said first analyte, thus forming 4 a pre-bound analyte
- 5 . wherein said contacting causes at least a portion of a plurality of mesogens proximate to 6 said recognition moiety to detectably switch from a first orientation to a second 7 orientation upon contacting said first analyte with said recognition mojety:

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- (b) detecting said second orientation of said at least a portion of said plurality of 8 9 mesogens; 10 (c) contacting said analyte of interest with said recognition moiety, wherein said contacting causes at least a portion of a plurality of mesogens proximate to said 11 recognition moiety to detectably switch from the second orientation to a third 12 13 orientation upon contacting said analyte of interest with said recognition mojety: 14 and 15 (d) detecting the third orientation of said at least a portion of said plurality of mesogens. 16 whereby the affinity of the recognition moiety for the analyte of interest over the 17 pre-bound analyte is measured. 1 Claim 186. (Withdrawn) A device for amplifying an interaction between a first recognition 2 mojety and an analyte of interest, said device comprising: 3 a first substrate having a surface; a first organic layer attached to said surface of said first substrate; 4 5 wherein said first recognition moiety is capable of interacting with an analyte of interest 6 to form a first recognition mojety-analyte of interest complex; and 7 a mesogenic layer comprising a liquid crystalline material, wherein said mesogenic layer 8 is in contact with said first recognition moiety, and the formation of said complex 9 induces a rearrangement in a conformation of said mesogenic layer, and wherein 10 said mesogenic layer amplifies said interaction. 1 Claim 187. (Withdrawn) The device of claim 186, wherein the first recognition moiety is an 2 antibody. Claim 188. 1 (Withdrawn) The device of claim 186, wherein the analyte of interest is selected 2 from a biomolecule, chemical warfare agent, and noxious gas.
  - Claim 189. (Withdrawn) The device of claim 186, wherein said rearrangement of said mesogenic layer produces an optical signal.
- 1 Claim 190. (Withdrawn) A copper(II)-detecting device comprising:

(X)

2 a first substrate having a surface;

a second substrate having a surface, said first substrate and said second substrate being aligned such that said surface of said first substrate opposes said surface of said second substrate:

a first organic layer attached to said surface of said first substrate, wherein said first organic layer comprises a first recognition moiety; and

a mesogenic layer comprising a plurality of mesogenic compounds comprising a structure according to Formula X:

11 wherein

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X<sup>11</sup> is a member selected from a bond, Schiff bases, diazo compounds, azoxy compounds, nitrones, alkenes, alkynes, and esters;

R<sup>11</sup> and R<sup>21</sup> are members independently selected from substituted or unsubstituted alkyl, substituted or unsubstituted heteroalkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted heterocycloalkyl, substituted or unsubstituted heteroaryl, acyl, halogens, hydroxy, cyano, amino, alkoxy, mercapto, thia, and aza; wherein at least one of said R<sup>11</sup> and R<sup>21</sup> is cyano.

Claim 191. (Withdrawn) The copper(II)-detecting device of claim 190, wherein X<sup>11</sup> is a
 bond, R<sup>21</sup> is pentyl, and R<sup>11</sup> is cyano.

Claim 192. (Withdrawn) A sodium-detecting device comprising:

a first substrate having a surface:

a second substrate having a surface, said first substrate and said second substrate being aligned such that said surface of said first substrate opposes said surface of said second substrate:

a first organic layer attached to said surface of said first substrate, wherein said first 6 7 organic layer comprises a first recognition moiety comprising a carboxylic acid 8 moiety; and

> a mesogenic layer comprising a plurality of mesogenic compounds comprising a structure according to Formula X:

$$R^{11}$$
  $X^{11}$   $R^{21}$   $(X)$ 

12 wherein

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X11 is a member consisting of a bond, Schiff bases, diazo compounds, azoxy compounds, nitrones, alkenes, alkynes, and esters:

R11 and R21 are members independently selected from substituted or unsubstituted alkyl, substituted or unsubstituted heteroalkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted heterocycloalkyl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, acyl, halogens, hydroxy, cyano, amino, alkoxy, mercapto, thia, and aza: wherein at least one of said R<sup>11</sup> and R<sup>21</sup> is a member selected from cyano hydroxy, alkoxy, alkylamine, amine, mercapto, and thia.

(Withdrawn) The sodium-detecting device of claim 192, wherein X<sup>11</sup> is a Claim 193. 2 member selected from a bond and an alkene.

(Withdrawn) The sodium-detecting device of claim 192, wherein R<sup>11</sup> is cyano and R21 is methoxy.

(Withdrawn) The sodium-detecting device of claim 192, wherein R11 is cyano and R21 is pentyl. 2

(Withdrawn) A hexylamine-detecting device comprising: 2 a first substrate having a surface;

(X)

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a second substrate having a surface, said first substrate and said second substrate being aligned such that said surface of said first substrate opposes said surface of said second substrate;

a first organic layer attached to said surface of said first substrate, wherein said first organic layer comprises a first recognition moiety comprising a carboxylic acid moiety; and

a mesogenic layer comprising a plurality of mesogenic compounds comprising a structure according to Formula X:

12 wherein

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X<sup>11</sup> is a member consisting of a bond, Schiff bases, diazo compounds, azoxy compounds, nitrones, alkenes, alkynes, and esters;

R<sup>11</sup> and R<sup>21</sup> are members independently selected from substituted or unsubstituted alkyl, substituted or unsubstituted heteroalkyl, substituted or unsubstituted cycloalkyl, substituted or unsubstituted heterocycloalkyl, substituted or unsubstituted heterocycloalkyl, substituted or unsubstituted heteroaryl, acyl, halogens, hydroxy, cyano, amino, alkoxy, mercapto, thia, and aza; wherein at least one of said R<sup>11</sup> and R<sup>21</sup> is a member selected from cyano, hydroxy, alkoxy, alkylamine, amine, mercapto, and thia.

Claim 197. (Withdrawn) The hexylamine-detecting device of claim 196, wherein X<sup>11</sup> is a member selected from a bond and an alkene.

Claim 198. (Withdrawn) The hexylamine-detecting device of claim 196, wherein R<sup>11</sup> is
 cyano and R<sup>21</sup> is methoxy.

Claim 199. (Withdrawn) The hexylamine-detecting device of claim 196, wherein R<sup>11</sup> is cyano and R<sup>21</sup> is pentyl.

Claim 200. (Withdrawn) A method of detecting an analyte, comprising:

2	(a) in	teracting said analyte with a surface comprising a recognition moiety, thereby
3		forming an analyte-recognition moiety complex, said surface comprising:
4		(i) a substrate;
5		(ii) an organic layer bound to said substrate; and
6		(iii) said recognition moiety bound to said organic layer;
7	(b) co	ontacting said analyte-recognition moiety complex with a mesogenic layer, thereby
8		causing at least a portion of a plurality of mesogens proximate to said recognition
9		moiety to detectably switch from a first orientation to a second orientation and
0	detect	ing said second orientation of said at least a portion of said plurality of mesogens,
1		whereby said analyte is detected.
1	Claim 201.	(Withdrawn) A method of detecting an analyte, comprising:
2	(a) in	teracting said analyte with a surface comprising said recognition moiety, said
3		surface comprising:
4		(i) a substrate;
5		(ii) an organic layer bound to said substrate; and
6		(iii) said recognition moiety bound to said organic layer;
7	(b) co	ontacting said analyte with an organic mesogenic layer, thereby causing at least a
8		portion of a plurality of mesogens proximate to said recognition moiety to
9		detectably switch from a first orientation to a second orientation upon contacting
0		said analyte with said recognition moiety; and
1	detecti	ing said second orientation of said at least a portion of said plurality of mesogens,
2		whereby said analyte is detected.
1	Claim 202.	(Withdrawn) A method for detecting an analyte, comprising:
2	interac	ting said analyte and a mesogenic layer, wherein said interacting causes at least a
3		portion of a plurality of mesogens to detectably switch from a first orientation to a
4		second orientation; and

detecting said second orientation of said at least a portion of said plurality of mesogens,
 whereby said analyte is detected.